I entirely endorse her last point, about illicit "borrowing." But here might I suggest that doctors can be of help to the library if they are willing to donate journals to which they subscribe, when they have finished with them. Finally, as Dr Timbury says, get to know the staff of your library. They are there to help you.

E M EDWARD

Warwickshire Postgraduate
Medical Centre,
Coventry

How to choose and use a calculator

SIR,—I am sorry that Dr T D V Swinscow in his excellent article on how to choose a calculator (3 February, p 326) does not quite do justice to reversed Polish notation (RPN) and to the advantages of programmable instruments even for those who, like me, regard themselves as mathematically naive.

As to the first, while the debate about RPN versus algebraic notation is never ending, there are clear logical advantages in the former which carry over into the whole class of problems encountered in medicine. I do not agree that RPN is named after a man, but that is unimportant. As to the second, it is a general principle of the use of calculators that the escalation rule operates—namely, that one buys a machine because it has certain properties (for example, one memory) only to recognise that if it had a bit more (for example, eight memories) it would be that much more useful. The availability of programming, while it could threaten some by its alien nature, will stimulate many more. I should like to say too that those who are contemplating a calculator that will do their statistics, their accounts, and their stock-market transactions need a programmable instrument (whether magnetic card or not is a subsidiary consideration) to avoid Dr Swinscow's Coleridgean "person from Porlock" syndrome. They will find that it opens new fields and is not difficult for the logically as distinct from mathematically equipped individual to handle. In my unit we have gone from one non-programmable to four programmable machines in three years.

HUGH DUDLEY

St Mary's Hospital,
London W2

SIR,—In his otherwise excellent article on choosing and using a calculator, (3 February, p 326), Dr T D V Swinscow has made a serious omission by not mentioning that most calculators are now available as liquid crystal display (LCD) models, which give 1000 to 2000 hours—that is, several years—of daily use on one set of batteries. The problem of failing batteries in the middle of Africa and the development of internal faults in rechargeable batteries are now things of the past.

M J BALL

Hertfordshire Area Health Authority,
Hemel Hempstead, Herts

A "side benefit" of metronidazole?

SIR,—Metronidazole currently finds extensive use in the prophylaxis and treatment of anaerobic wound infections. We would like to report a case so treated with an unusual side-effect or "side benefit."

The patient was an 81-year-old man, admitted

for repair of a recurrent right inguinal hernia and of a left inguinal hernia. He had suffered from a chronic skin disease for the previous 15 years, which had resisted all forms of treatment. A skin biopsy in 1972 was reported as "prurigo nodularis" and he had subsequently been treated symptomatically with a variety of medicaments. Currently he was on Synalar (fluocinolone acetonide) ointment and two Vallergeran (trimeprazine tartrate) tablets at night. He was covered with elevated, indurated, scabbed, and ulcerated lesions, which were extremely irritable. These were more marked over his extremities. Shortly after his admission he developed copious diarrhoea, which on investigation proved to be due to an intussuscepting neoplasm of the transverse colon. With a view to resection, he was started on bowel preparation, consisting of castor oil, enemas, and metronidazole. Within 24 hours of starting the metronidazole he announced that his itching had gone. Over the course of the next week all his scabs cleared completely and the lesions became less prominent. He continued itch and scab free until his discharge.

Perhaps metronidazole has found another niche into which it can usefully be slotted—an anti-itch niche.

S M WOOD
SISTER JOSEPH
L J CHALSTREY

Hackney Hospital,
London E9

Non-motile sperms after vasectomy: do they matter?

SIR,—The papers of Mr R P Marwood and Dr Valerie Beral, and Dr Ian S Edwards and Mr John L Farlow (13 January, p 87) draw attention to the tiresome but important question of "clearance" after vasectomy.

Small numbers of motionless sperms linger in the nooks and crannies of the seminal vesicles and the ampullae of the vas, and can be found in the centrifuged deposit of the semen, long after vasectomy. Some of the medical defence organisations take the view that patients must continue to provide specimens of semen until not a single sperm, however dead, can be found. This seems to be because it is feared that a judge and jury might conclude that an unwanted pregnancy could have been caused by such a sperm, and the doctor who advised his patients that it was safe to discontinue using other contraceptive methods might be considered negligent. Absurd though this opinion must be, it is good news to see objective evidence to contradict it. One can, of course, always see if the motionless sperms take up vital dyes such as eosin or trypan blue, to make quite sure that they are dead and not just sleeping.

JOHN BLANDY
H R ENGLAND
MARIAN BARNES

Department of Urology,
London Hospital Medical College,
London E1

SIR,—While continued presence of immotile sperms in postvasectomy seminal specimens is unlikely to cause pregnancy, Dr Ian S Edwards and Mr John L Farlow (13 January, p 87) have not proved their hypothesis. Immotile sperms may still remain viable and may have a normal oxygen consumption.¹ When immotile sperms persist it would be useful, and may become necessary, to assess the viability of the sperms by staining the centrifuged sample by, for example, Eliasson's modification of Dougherty's technique,^{2,3} using 1% eosin and 10% nigrosin.

The adoption of this technique may help to establish the new criteria for seminal clearance sought by Mr R P Marwood and Dr Valerie Beral in the same issue (p 87). It would certainly alleviate the patient's anxiety and prevent possible medicolegal complications where persistent immotile sperms are shown to be non-viable.

P M HENDY-IBBS

Department of Obstetrics and Gynaecology,
Jessop Hospital for Women,
University of Sheffield

¹ Eliasson, R, *Biology of Reproduction*, 1970, **3**, 369.
² Dougherty, K A, *et al*, *Fertility and Sterility*, 1975, **26**, 700.
³ Eliasson, R, *Fertility and Sterility*, 1977, **28**, 1257.

SIR,—The short reports by Mr R P Marwood and Dr V Beral, and by Dr I S Edwards and Mr J L Farlow (13 January, p 87) on the importance or otherwise of a few non-motile sperm go a long way to confirm the clinical impression of many of us that there is virtually no chance of a pregnancy with such a seminal analysis.

Despite this impression most vasectomists "play it safe"—and indeed this is the advice of the Medical Defence Union—by waiting for two completely clear specimens. In view of this it is with considerable reluctance that I must rock the boat by reporting a recent case.

I performed a vasectomy on a 45-year-old man in February 1978. He produced specimens of semen for analysis at 12 and 14 weeks and neither of these showed any sperm. We then told him that he was sterile, and his 35-year-old wife stopped taking the contraceptive pill. A 10-week pregnancy was confirmed by ultrasound on 1 November and she underwent a vaginal termination and laparoscopic sterilisation. A further seminal analysis of a fresh specimen in October showed less than one non-motile spermatozoon per high-powered field. There can be few readers who would not jump to the same conclusion that I did—that this lady must have had extra-marital intercourse; but subsequent inquiries in strictest confidence by both myself and the gynaecologist convinced me that this was not so. I accept that this must be a most unusual case and that it raises more questions than it answers, but in the light of it I feel myself that we are not in a position to be certain that we can ignore the odd non-motile sperm.

ROBERT WHITAKER

Department of Urology,
Addenbrooke's Hospital,
Cambridge

Detection of deep venous thrombosis by ^{99m}Tc-labelled red-cell scans

SIR,—We read with interest the paper by Dr W Beswick and others (13 January, p 82) concerning the detection of deep venous thrombosis by scanning the technetium-^{99m}-labelled red-cell pool. The authors conclude that this technique "is clearly an acceptable alternative" to conventional phlebography and preferable to other diagnostic techniques. We would like to question this conclusion on the following counts.

Firstly, the patients chosen for investigation were highly selected. A high clinical diagnostic rate of 72% suggests that they were suffering from major venous thrombosis. This is confirmed by reference to table I, which shows that 19 out of 21 patients had thrombus involving the proximal veins. In only two

patients was the thrombus confined to the calf. This is at variance with a large study,¹ in which thrombus was confined to the calf in 49% of 493 legs containing thrombus. To say that "there was a general reluctance on the part of individual doctors to perform phlebography on patients with negative ^{99m}Tc-red-cell scans" merely emphasises the bias of investigation in favour of their own technique.

Secondly, this technique apparently lacks the facility of radionuclide venography, its nearest rival in providing a simultaneous lung scan. Finally, the acid test of all new diagnostic procedures is whether they may be applied in the district general hospital as readily as the teaching hospital. Conventional phlebography fulfils this criterion. We remain unconvinced that this new technique can alter the situation in any way, being more demanding in time, expertise, skilled manpower, and expensive equipment.

P C CHAN
P C WEBB
N A G JONES
V V KAKKAR

Thrombosis Research Unit,
Department of Surgery,
King's College Hospital Medical School,
London SE5

¹ Stamatakis, J D, *et al*, *British Journal of Surgery*, 1978, **65**, 449.

No more textbooks on primary care?

SIR,—How sad that Dr Ian Tait should plead for "no more textbooks on primary care or general practice" (27 January, p 256). He argues that the range of primary care is too comprehensive and the clinical activities too variable between different practitioners to allow adequate coverage in standard texts. Primary care, he believes, is "inherently resistant to ossification in any form of standard text."

These arguments could be used against any standard text for most major specialities and to that extent they are valid. Indeed, it might be argued that all knowledge becomes ossified the moment it is set down in texts; but there are many good reasons why the attempt should be made, which do not necessarily relate in an obvious way to the needs of an intended reader. The first is that the creative activity involved in writing and the critical activity involved in reading medical texts, even standard texts, advance our specialty. This alone is sufficient reason for producing them. Medicine, however, does not consist of some theoretical body of knowledge which exists independently from patients. It can be understood and described only in relation to a given population. It is for this reason that Ian Tait's statement that the textbooks the general practitioners uses "are no different from those that serve the rest of his profession" should be analysed most carefully.

Primary medical care, wherever and however it is practised, is first-contact care and the population served by the general practitioner is fundamentally different from that served by the hospital doctor. Most medical textbooks are written by hospital doctors who have gained experience and carried out research on hospital patients. Their findings are fine for hospital patients but they cannot be applied uncritically to general practice. They may be right but there are many good reasons why they may not be. I have referred before in

your columns (1 July 1978, p 53) to the mistakes we can make when we base diagnostic and management norms and even our ideas about aetiology and prognosis on a hospital population. Our textbooks must be different from those that serve the rest of the profession because our patients and their problems are different; as with all texts, there will be good and bad but with impending mandatory vocational training we have never needed the good ones more urgently. They must continue to embody sound research into clinical medicine in general practice and involve everyday problems such as urinary infection, ischaemic heart disease, hypertension, and a score of other conditions, so that aetiology and prognosis can be more soundly based and diagnostic and management norms can be set—thereby building up knowledge that is relevant to the needs of our patients.

Of course, we need the help of our colleagues in other specialties but our problems have many unique features and attempting to produce a "standard text" is one way of helping us solve some of them.

DAVID BROOKS

Manchester

Hazards of fiberoptic bronchoscopy

SIR,—I would like to make a few observations regarding the leading article on "The hazards of fiberoptic bronchoscopy" (27 January, p 212).

One of the problems of performing this investigation under local anaesthetic (apart from the fact that a large number of patients find it very distressing) is the choice of drugs used for "sedation." This usually varies between an opiate and a benzodiazepine, usually diazepam. While it is well known that opiates in general produce respiratory depression, it appears to be less well appreciated that in the elderly and infirm diazepam is equally effective in producing it, even in small doses (2.5–5.0 mg intravenously). This equally applies to patients with chronic respiratory failure. It is one of the anaesthetist's less enviable tasks to be summoned to an apnoeic patient under these circumstances, and asked to undertake intermittent positive-pressure ventilation, for what may eventually be several weeks, owing to upsets in the physiological norm for that patient—the more so since rarely is the anaesthetist consulted, prior to the bronchoscopy on these problem patients, about the most appropriate form of anaesthesia.

PETER R W LANHAM

Department of Anaesthesia,
London Chest Hospital,
London E2

SIR,—Your leading article on the hazards of fiberoptic bronchoscopy (27 January, p 212) appears to us to overstate the case. This is a pity because it might well discourage the setting up of a district fiberoptic bronchoscopy service, such as we have in this group, offering inpatient or outpatient bronchoscopy on almost any day of the week.

After twenty years' experience of rigid bronchoscopy and now five years' experience of fiberoptic bronchoscopy, we have no doubt that this is a simple procedure, largely trouble free, and a great scientific advance. We have carried out over 1000 fiberoptic bronchoscopies under local anaesthesia, with no complications whatsoever. We use no premedication and

have had no trouble with bleeding. In our previous series of 4000 bronchoscopies under general anaesthesia using the rigid bronchoscope, we had five deaths, one due to haemorrhage and one to rupture of a large upper lobe abscess, and three in patients with lung cancer complicated by severe cardiorespiratory disease.

Advantages of fiberoptic bronchoscopy include the retention of the cough reflex and the absence of any respiratory-centre-depressant drugs, making bleeding unimportant. Also there are several simple methods of administering oxygen during the procedure. Again, after operation or in an intensive care unit a patient with atelectasis can be sucked out easily since the bronchoscope can be taken to the patient's bedside and, similarly, a diagnostic test can be easily carried out on a sick patient without moving him from his bed.

RANDAL STALKER
R L WARD

Royal Infirmary,
Blackburn, Lancs

Antinuclear factor in patients on prazosin

SIR,—Dr A J Marshall and his colleagues (20 January, p 165) described an increase in frequency of antinuclear factor (ANF) in patients under treatment with the hypotensive drug prazosin. Overall, 19 of 57 patients (33%) were found to have ANF, with some developing autoantibodies only after commencement of the drug. In contrast, our own data on a larger group of patients indicate that therapy with prazosin is not associated with increased ANF incidence. We found ANF in 9.8% of 132 hypertensive patients treated with prazosin compared with 11.6% of 1087 patients treated with other hypotensive drugs.

In a previous communication (7 January 1978, p 14) we have shown that methyldopa is clearly associated with a raised ANF incidence, so further analysis of our data was necessary. This showed that the incidence of ANF in patients treated with hypotensive regimens excluding methyldopa (736 patients), in patients taking prazosin but not methyldopa (92 patients), and in untreated hypertensives (352 patients) was not significantly different (7.3%, 6.5%, and 6.0% respectively). The combination of methyldopa with prazosin did not increase the ANF frequency beyond that of the group on methyldopa alone (20.5% with methyldopa, 17.5% with methyldopa plus prazosin).

A criticism of Dr Marshall's paper is that their data have not been evaluated against large numbers of age-matched controls. This is important as the frequency of ANF increases with age and is higher in women than men. The first group of 47 patients on prazosin described by Marshall *et al* were aged 55–73. No information is given on the ages of their control populations. A comparison from our series of treated hypertensives aged 60–69 compared with those aged 20–29 shows the ANF incidence to be 16.7% in the former and only 2.6% in the latter, a greater than sixfold difference. Similarly, the incidence of ANF in women patients aged over 50 on treatment with methyldopa is 52%, while for all patients on treatment with this drug ANF was found in fewer than 20% (391 patients). Despite this frequency of ANF it was not, in these